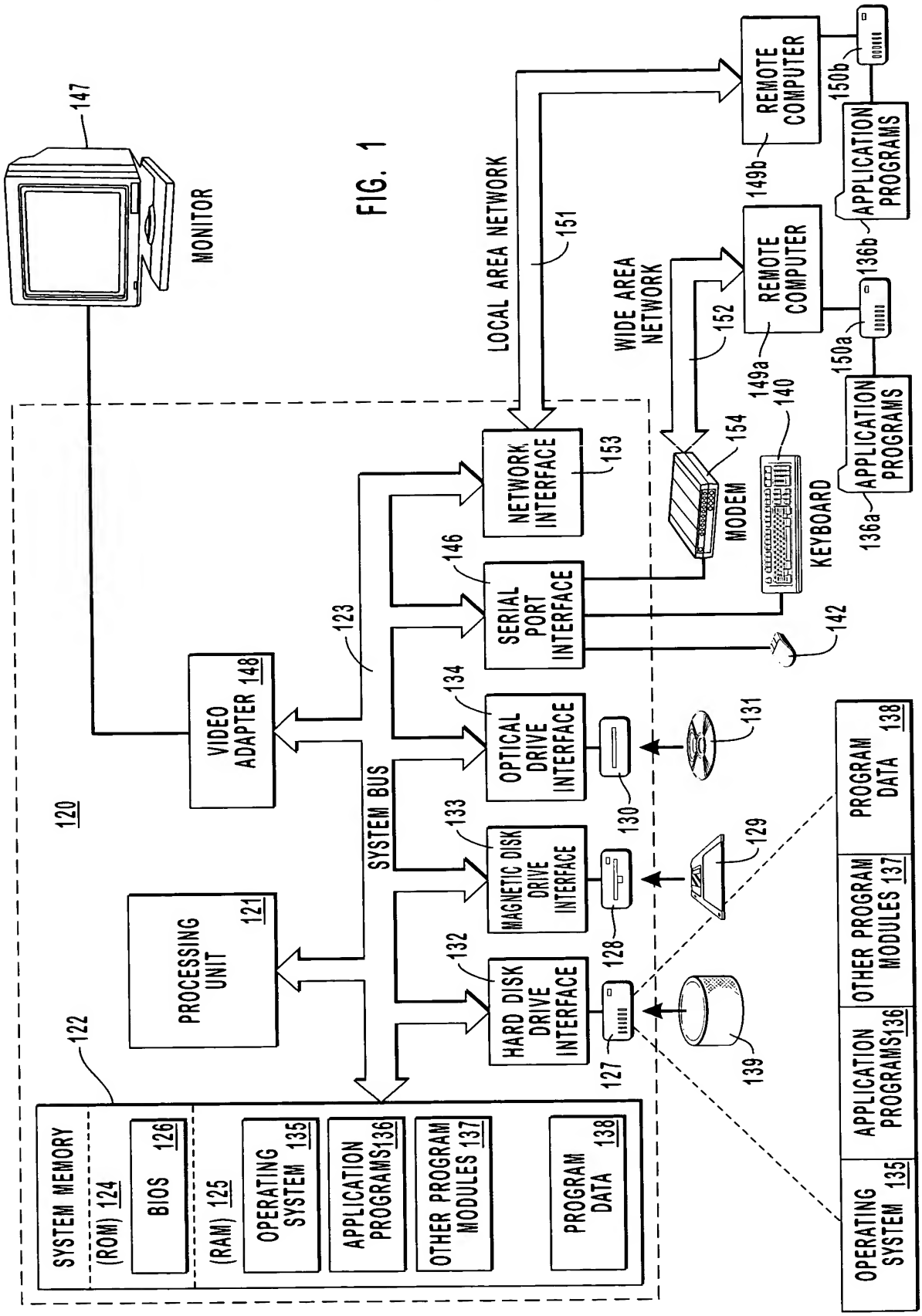
147
MONITOR
FIG. 1
LOCAL AREA NETWORK
151
WIDE AREA NETWORK
152
REMOTE COMPUTER
149b
150b
APPLICATION PROGRAMS
136b
REMOTE COMPUTER
149a
150a
APPLICATION PROGRAMS
136a
140
KEYBOARD
154
MODEM
NETWORK INTERFACE
153
146
SERIAL PORT INTERFACE
142
123
VIDEO ADAPTER 148
134
OPTICAL DRIVE INTERFACE
131
130
133
MAGNETIC DISK DRIVE INTERFACE
129
128
132
HARD DISK DRIVE INTERFACE
127
139
SYSTEM BUS
120
PROCESSING UNIT
121
122
SYSTEM MEMORY
(ROM) 124
BIOS 126
(RAM) 125
OPERATING SYSTEM 135
APPLICATION PROGRAMS136
OTHER PROGRAM MODULES 137
PROGRAM DATA 138
PROGRAM DATA 138
OTHER PROGRAM MODULES 137
APPLICATION PROGRAMS136
OPERATING SYSTEM 135

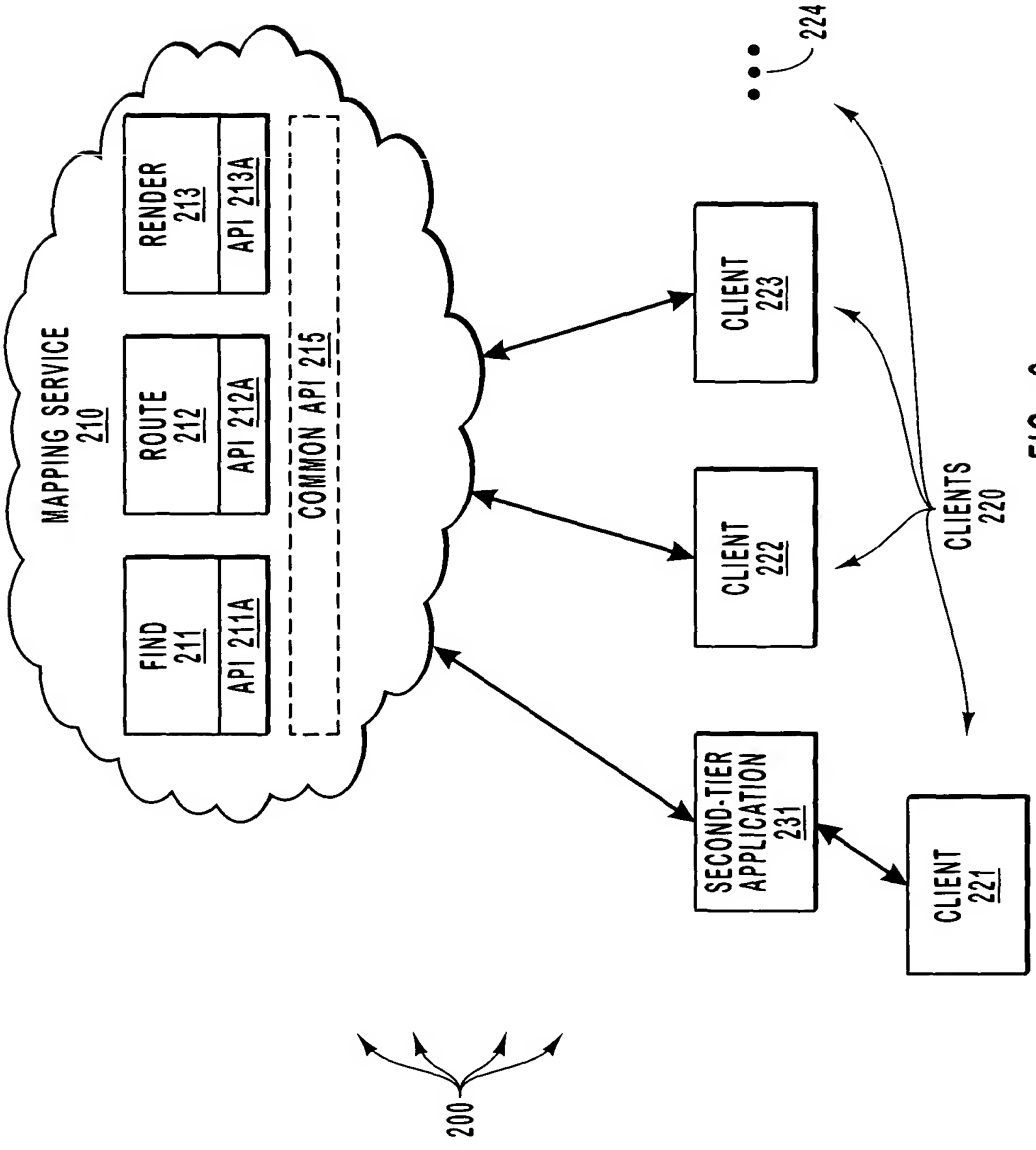
MAPPING SERVICE
210
FIND
211
API 211A
ROUTE
212
API 212A
RENDER
213
API 213A
COMMON API 215
CLIENT
223
CLIENT
222
SECOND-TIER
APPLICATION
231
CLIENT
221
CLIENTS
220
224
200

FIG. 2

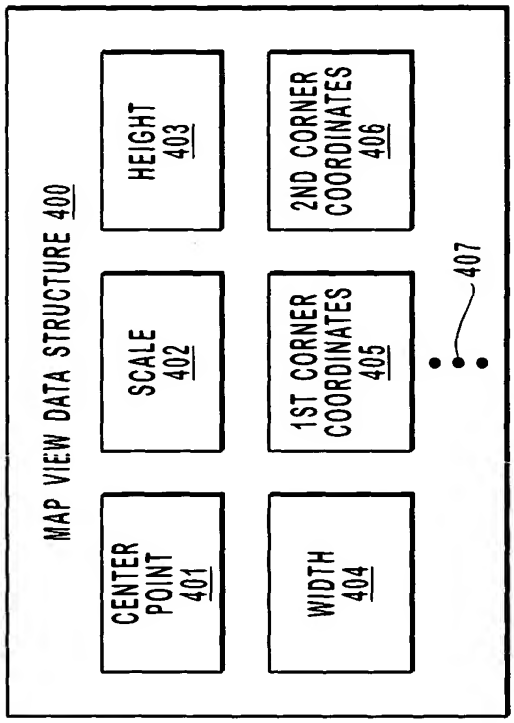
MAP VIEW DATA STRUCTURE 400
CENTER POINT 401
SCALE 402
HEIGHT 403
WIDTH 404
1ST CORNER COORDINATES 405
2ND CORNER COORDINATES 406
407

FIG. 4

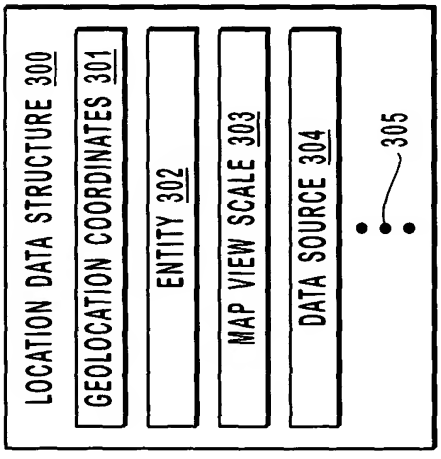
LOCATION DATA STRUCTURE 300
GEOLOCATION COORDINATES 301
ENTITY 302
MAP VIEW SCALE 303
DATA SOURCE 304
305

FIG. 3

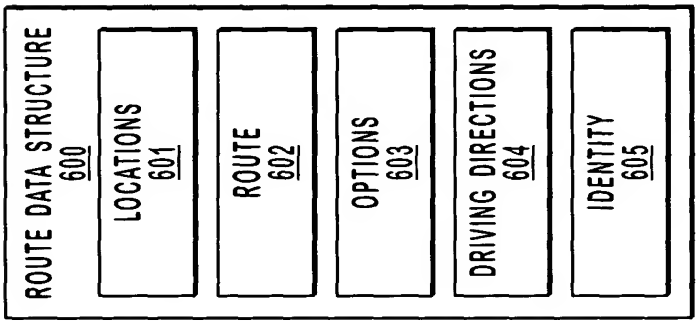
ROUTE DATA STRUCTURE
600
LOCATIONS
601
ROUTE
602
OPTIONS
603
DRIVING DIRECTIONS
604
IDENTITY
605

FIG. 6

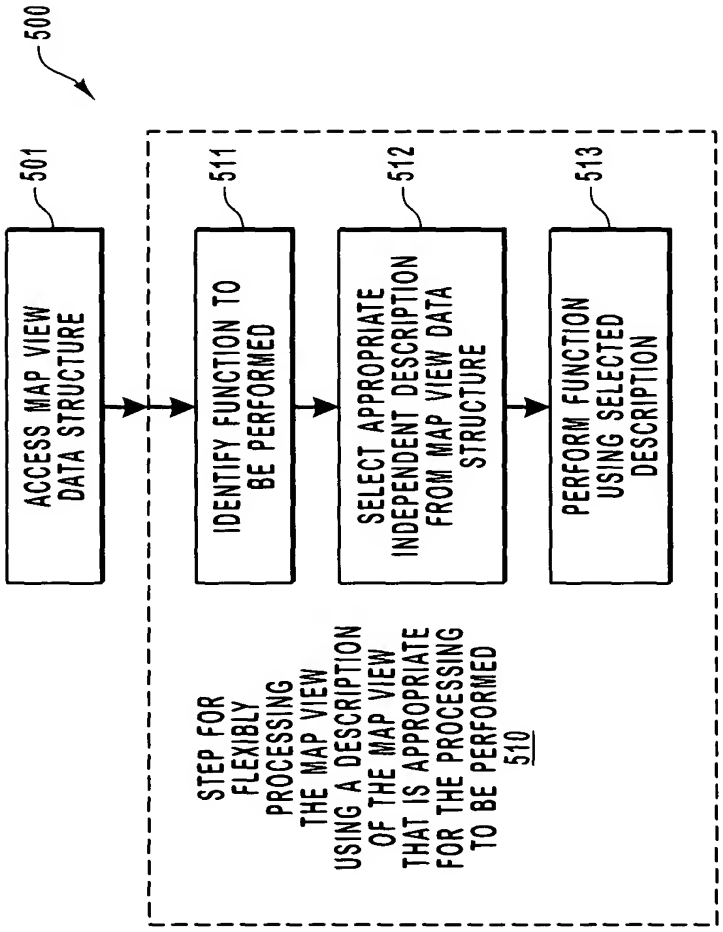
500
501
ACCESS MAP VIEW DATA STRUCTURE
511
IDENTIFY FUNCTION TO BE PERFORMED
512
SELECT APPROPRIATE INDEPENDENT DESCRIPTION FROM MAP VIEW DATA STRUCTURE
513
PERFORM FUNCTION USING SELECTED DESCRIPTION
STEP FOR FLEXIBLY PROCESSING THE MAP VIEW USING A DESCRIPTION OF THE MAP VIEW THAT IS APPROPRIATE FOR THE PROCESSING TO BE PERFORMED
510

FIG. 5

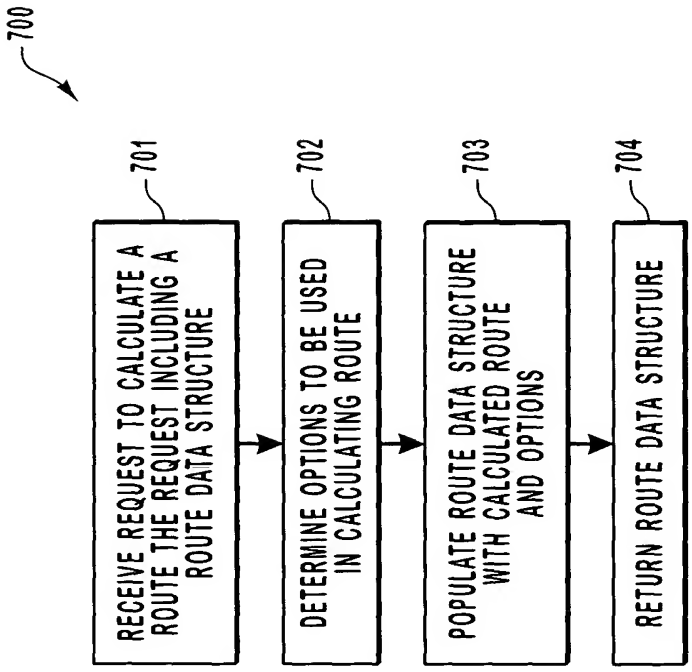
700
701
RECEIVE REQUEST TO CALCULATE A ROUTE THE REQUEST INCLUDING A ROUTE DATA STRUCTURE
702
DETERMINE OPTIONS TO BE USED IN CALCULATING ROUTE
703
POPULATE ROUTE DATA STRUCTURE WITH CALCULATED ROUTE AND OPTIONS
704
RETURN ROUTE DATA STRUCTURE

FIG. 7